

Chapter 11 Introduction to Genetics

Section Review 11-4

Reviewing Key Concepts

Identifying Processes *On the lines provided, order the different stages of meiosis I and meiosis II in the proper sequence.*

- _____ 1. Chromosomes line up in the center of the cell.
- _____ 2. Spindle fibers pull apart homologous chromosomes.
- _____ 3. Four haploid (N) daughter cells form.
- _____ 4. Cells undergo a round of DNA replication.
- _____ 5. Sister chromatids separate from each other.
- _____ 6. Homologous chromosomes form tetrads.
- _____ 7. Two haploid (N) daughter cells form.
- _____ 8. Spindle fibers attach to the homologous chromosome pairs.
- _____ 9. Individual chromatids move to each end of the cell.
- _____ 10. Crossing-over (if any) occurs.

Short Answer *On the lines provided, answer the following questions.*

11. Compare the number of cells that result from meiosis and mitosis.

12. How does the genetic content of cells resulting from mitosis and meiosis differ?

Reviewing Key Skills

13. **Comparing and Contrasting** Describe a similarity and a difference between the products of meiosis I and meiosis II.

14. **Comparing and Contrasting** How is the formation of gametes in males similar to the formation of gametes in females? How is it different?

15. **Applying Concepts** If a diploid cell containing 28 chromosomes undergoes meiosis, how many chromosomes will each daughter cell have?
